



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/611,308	07/06/2000	Motoyasu Taguchi	Q59988	4941

7590 05/11/2005
Sughrue Mion Zinn Macpeak & Seas
2100 Pennsylvania Avenue N W
Washington, DC 20037-3202

EXAMINER

PIZARRO, RICARDO M

ART UNIT	PAPER NUMBER
----------	--------------

2661

DATE MAILED: 05/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/611,308

Applicant(s)

TAGUCHI

Examiner

Ricardo Pizarro

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-18 and 23 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 19 and 22 is/are rejected.
- 7) ☒ Claim(s) 3-14, 20 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Finality of Action dated 12/20/04 is hereby withdrawn

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 19 and 22 rejected under 35 U.S.C. 102(b) as being anticipated by US patent No. 4,007,330 (Winters).

Winters discloses a Method and apparatus for demodulation comprising a radio apparatus comprising a plurality of delay circuits for generating delay profiles by calculating correlations comprising comparing the largest correlation value of a delay profile with a predetermined threshold (Fig. 1. col 6 lines 28 and 64-66, col 7 lines 24-26 and 33-36). It would have been inherent stopping operation of said delay profile on the basis of the comparison results obtained in the comparison step , since by comparing the largest correlation value with a threshold , ie the largest correlation being selected by the peak selection circuit and fed from this circuit to a threshold detector circuit 36 this circuit would only allowed an output to occur only when the

largest correlation exceeds a predetermined level (col 7 lines 32-36), therefore operation of the circuit would stop.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent No. 6,330,271 (Klang) in view of US patent No. 5,793,796 (Hulbert)

Regarding claim 1, Klang discloses a CDMA receiver comprising a radio communication apparatus in a CDMA system comprising a plurality of delay profile circuits for generating delay profiles by calculating correlations (delay circuits 1,2 and 3 in Fig. 2, col 3 line 41) between a reception signal and known data at a plurality of timings, and timing circuits which are respectively prepared for said delay profile circuits and generate correlations timings in said profile circuits (Tracking device relays on a correlation function and refines delay estimates and include a plurality of delay elements 44 that are used to track paths in the circuit, col 4 lines 10-13, 15-18 and 22-25) wherein operation of at least one of said delay profile circuits is changed in accordance with a correlation value of a delay profile (results of early and late

Art Unit: 2661

correlations are compared to adjust the phase of the local code in a circuit, col 4 lines 30-33).

Hulbert did not specifically disclose stopping a delay profile in accordance with a correlation value of the delay profile.

Hubert discloses an apparatus for use in equipment providing a radio link between affixed and a mobile unit, comprising delay profile circuits being stopped in relationship to the correlation values obtained (col 10 lines 26-28 and 31-36), as in claim 1.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the Klang reference by stopping at least one delays circuit as taught by Hulbert to obtain a way to track multi-path signal delays in the system.

The motivation to do so is to provide an apparatus and method for estimating radio signal transmission delays and more particularly to a method and apparatus for tracking signals delays in a telecommunication system that uses sequence spread spectrum techniques.

Regarding claim 2 wherein said plurality of delay profile circuits are use to simultaneously receive signals from a plurality of CDMA transmitters (separate rake branch units 1,2 and 3 in Fig. 2 receive signals form a plurality of transmitters) .

Allowable Subject Matter

5. Claims 15-18 , 23 are allowed.

6. Claims 3-14, 20-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim. Please also notice objection to claims under 37 CFR 1.75

Conclusion

7. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

As requested by applicant, signed and dated copy of IDS dated 10/20/03 is enclosed.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306

(for formal communications intended for entry, for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to 220 South 20th Street, Crystal Plaza Two, Lobby, Room 1B03, Arlington, Va 22202 (Customer Window).

Art Unit: 2661

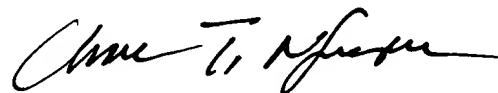
Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Ricardo Pizarro** whose telephone number is (571) 272-3077. The examiner can normally be reached on Monday-Friday from 9:00 AM to 5:30 PM. The fax number for this Group is (703) 872-9306.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Chau Nguyen** can be reached on (571) 272-3126.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 3, 2005

Ricardo M. Pizarro



CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600